Semiconductor-Based Recursive Electron Siphons for Durable Gravito-Thermal Energy Conversion

17 December 2025 Simon Edwards Research Acceleration Initiative

Introduction

Building upon the concepts laid out in 04 May 2023 and 26 October 2025, a more durable structure designed to achieve the same goal as the proposed experiment involving bleaching molecules such as sodium hypochlorite or ozone (which have the interesting feature of a single positively charged atom which has the ability to shunt any introduced electrons into the other atoms of the molecule, primarily through nano-arcing, thus resulting the bleaching property as explained in those publications,) but to achieve this using durable compounds, sc. semiconductors. In our case, we are concerned not with the bleaching property per se, but with the increasing the amount of heat which can be generated through a single interaction of light with a positively charged atom in a semiconductor as a result of recursive recirculation of a single electron within an intra-molecular circuit.

As semiconductor research has been focused upon mitigating the amount of heat generated by the flow of electricity through the material, it is unlikely that anyone has purposefully attempted to see how much heat could be generated by purposefully reconfiguring materials to bring about this recirculation.

Abstract

Just as with bleaching molecules, semiconductor materials generate too much heat relative to the amount of current being passed through them for this heat to be explicable through the prevailing understanding of the thermal properties of these materials. Despite great pains being taken to prevent arcing within computer processors, even without electrical arcing between transistors, a great deal more heat is generated by these materials than would be generated by simply passing the same amount of current through a block of iron.

As ozone and sodium hypochlorite both feature a single positively charged atom and as semiconductor transistors each feature both positive and negative-type silicon in order to support the opening of circuits through so-called inversion layers, we can deduce that something similar to what happens in a transistor is happening in bleaching molecules on an entirely internal, intra-molecular basis.

Although the laws of thermodynamics prohibit perpetual motion machines, we already use gravity-driven fluidic siphons in our everyday lives. While those siphons rely upon the Earth's gravity, as a whole, in order to achieve the pumping of fluids, I propose that a single molecule's nano-gravity can support the conveyance of an electron internally within a molecule on a recursive basis. Thus, the source of the energy to ensure the continued motion of

electrons around the intra-molecular circuit would ultimately be derived from the molecule's own gravity.

This can be possible because in a three-molecule system, quantum electrical energy in the form of neutrinos (or gravity, if you prefer) which would ordinary act as tributary streams to a larger river in the form of whole electrons are, instead of being applied evenly toward all three atoms in a three-atom molecular system are diverted toward the persistently negative components of the three-atom system molecular system. In ozone, three atoms worth of gravitational energy are focused upon two of the atoms, resulting in a disequilibrium of charge. In this system, Coulomb attraction tends to make the surplus electrons move toward the positively charged oxygen atom, but an opposing force in the form of gravity alters the spin orientation of the electrons in the negatively charged atoms so that they never have spins with align with the valence electrons of the positively charged oxygen atom, thus inhibiting flow. These opposing forces of focused quantum gravity (and the way in which the discrete magnetism of the individual valence electrons is influenced by this) and Coulomb attraction cause the overall electron system of the molecule to exist as a lever atop a fulcrum. The slightest change to the electrical or magnetic dynamics of the system can trigger a flow of electrons within the molecule which generates substantial heat.

Thus, for the positive component of this system, we might use phosphorous and, for the negative component, two germanium atoms. No matter what the composition of such molecules, it seems essential that the molecules be trinary in nature. The molecules must sit closely enough to one-another that Coulomb attraction and mutual gravitational attraction may come into play, but it is not necessary that single atoms be joined together in a single molecule per se. They may be collocated in proximity using hyperbaric pressure, for example, so that materials which would ordinarily not lend themselves to liganding in a trinary system could be used in this manner. For this to work, the molecules must have a trinary configuration and look a bit like Mickey Mouse and his ears. The two germaniums would have to be touching the phosphorous but would have to be kept from contacting one another. They must be far enough apart that electrons can only be transferred between through through arcing, but no so far apart that arcing cannot occur.

Once such a molecule is constructed, light would be allowed to interact with the molecule and, most importantly, the positively charged phosphorous. The photon would be converted into an electron and the electron would flow, counterintuitively, toward one of the negatively charged germanium atoms as a result of the direction of circulation of magnetic forces within the system (like a ship able to sail readily into the wind because it has a following ocean current.) At this point, one of the germanium atoms would have not one, but two (or perhaps even more) extra electrons and it would attempt to expel one of these electrons. As the electrons would not be able to flow toward the positive phosphorous, they would be forced to arc over to the negatively charged secondary germanium. The increased heat in that atom would overcome the dynamic which prevents flow of electrons into the positively charged atom and would allow for the cycle to complete, with electrons flowing back into the phosphorous provided that the second germanium can be kept warmer than the first. Such a system, in order to work as intended,

may require that the flow of heat energy be carefully controlled or that the primary germanium atom in the trinary system be somehow insulated from heating as, if it were heated, it would begin moving electrons the wrong way through the siphon. However, this concern may be unfounded as this is a siphon which may be able to work in both directions, simultaneously. In fact, the more times electrons jump back and forth between the atoms, the more heat is generated. There may be a maximum efficient operating temperature in such a system, which is why it is important that our thermoelectric plate be persistently cold and the design of 8 June 2025 certainly lends itself to that objective.

If the force with which the positively charged phosphorous resists taking on an electron in that system is greater than the amount of energy required for an electron to "arc" to the other germanium which is not liganded but is acting as the second of two nano- scale prongs in a what could be thought of as a molecular-scale arc welder, electrons will accumulate in the germaniums and will tend to jump in nano-arcs toward one another, generating substantial heat. When sufficient heat is generated, the electrons can return to the phosphorous and the cycle can begin again.

When electrons are conducted through atoms in a liganded molecule or through multiple molecules in a conductive material, they tend to jump from electron cloud to electron cloud, but only rarely interact with nuclei. To the extent that they do interact with nuclei, strong resonances are generated which lead to heating. However, when electrons "arc" between atoms or molecules, they are not magnetically guided and therefore do not conform to the circuitous "weaving" pathway which causes them to move like a slalom skier as they move from the orbit of one atom to the next.

When electrons arc, no matter the scale involved, they have a strong tendency to interact with the nuclei of the atoms and to resonate (causing extreme heating.) This is why electrical arcs can cut through materials whereas the same voltage applied through direct contact would not have the cutting effect of an arc welder.

In this proposed system, when the electron makes the leap from one germanium over to the other, the second germanium is strongly heated, but the electron is retained and is free to ultimately recirculate toward the phosphorous. If it were lost, another electron could be generated by simply allowing the phosphorous to interact with light to create a new electron in another photoelectric conversion event.

When we try to heat a metal coil, for example, by passing electrons through it, this is not even close to a fully efficient process because the electrons are flowing through the material and not arcing. If we introduced purposeful imperfections to a heating coil, it would convert electricity into heat with greater efficiency. This system takes that concept a step further and recycles individual electrons within the internals of individual molecules which are made to generate heat each time they make a revolution through the Charge-Divergent Trinary Molecular System.

Whereas ordinarily, we would attempt to remove electrons generated by a photovoltaic system in order to harvest them, this system relies upon ensuring that the electrons remain in the intra-molecular loops formed by the trinary molecules.

The heat generated by transistors in a computer processor is generated as a result of inter- rather than intra-molecular arcing which is unseen but which yet produces a great deal of heat. This is never investigated because it is assumed by the research community that all arcing must be between two large objects such as prongs of an arc welder or two neighboring transistors. Each semiconductor transistor operates according to the principle of using positive drains to move electrons, which amounts to an "arc" in every practical respect as this type of electrical current is prone to generating nuclear resonance and therefore, heat.

It would be interesting to see what would happen if we created a closed circuit composed of two traditional nano-scale transistors in which one transistor leads to a second which feeds back into the first. Although there would be some loss of current due to the scale involved, it may afford us an opportunity to demonstrate that a small instant of input current would lead to inordinate heat generation. As those doing research into semiconductor transistors are doing everything in their power to prevent heat generation, this is the last thing which they would have experimentally attempted. If they had attempted this, they would have discovered that electrons can be siphoned much as water is siphoned and that this recirculation can form the basis of an energy source, with the gravity of the molecules providing the energy needed to bring about this effect.

If this were to be done on a purely intra-molecular scale, there would be little to no loss of electrons and light could be used to initiate the siphon. It may be prudent to only transiently expose the material to light as the introduction of too much light could actually disrupt the process by preventing the return of the electrons from the second germanium atom to the phosphorous atom, which would act as the starting point of the siphon.

Conclusion

Charge divergence in such system is supported by the relative position of the atoms and the discrete gravity of the molecule, which, although trivial, is enough to prompt the recursive looping of a single electron within the system, leading to an abundance of heat generation pursuant to an incredibly modest amount of input energy. We may extract energy from these systems thermoelectrically (ideally through the thermoelectric system described in 8 June 2025.) Despite the additional conversion step, the remarkable amount of heat energy it would generate would more than justify the extra conversion step and would allow for the production of abundant net energy. Here, we have a system which is a hybrid of photovoltaic and thermoelectric and which, despite two conversion steps, produces more energy than the photonic input energy provides because quantum gravitational energy is ultimately being harvested through this process by conversion of that energy into a mechanism that acts a bit like a spring which can load up an atom of germanium with an overabundance of electrons which will attempt to launch out forcefully toward

another, ultimately generating heat. That spring comes in the form of the forced torquing of electron spin in the valence ring of the germanium atoms by the surplus gravitational energy which, counter to the electroweak force, prevents the flow of electricity into the phosphorous despite its positive charge. Importantly, the trinary configuration of the atoms makes it possible for gravitational energy intended for the third atom (in this case, a phosphorous,) to produce an overcharge of the individual electrons in the other atoms which effects a consistently perpendicular spin orientation relative to the electrons in the positively charged phosphorous, preventing flow of electricity until the temperature of the germanium increases. As one germanium or the other will always tend to be warmer as it is on the receiving end of these arcs, a siphon is created which tends to move in a single prevailing direction.

In this system, photons are merely primers for an electron siphon which is powered by the discrete gravitational energy of the molecules, themselves. I, therefore, refer to it as a gravitothermoelectric converter.